

# Exhibit 19



# SW Business Review

## Java ME: Mobile and Embedded

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**September 29, 2006**

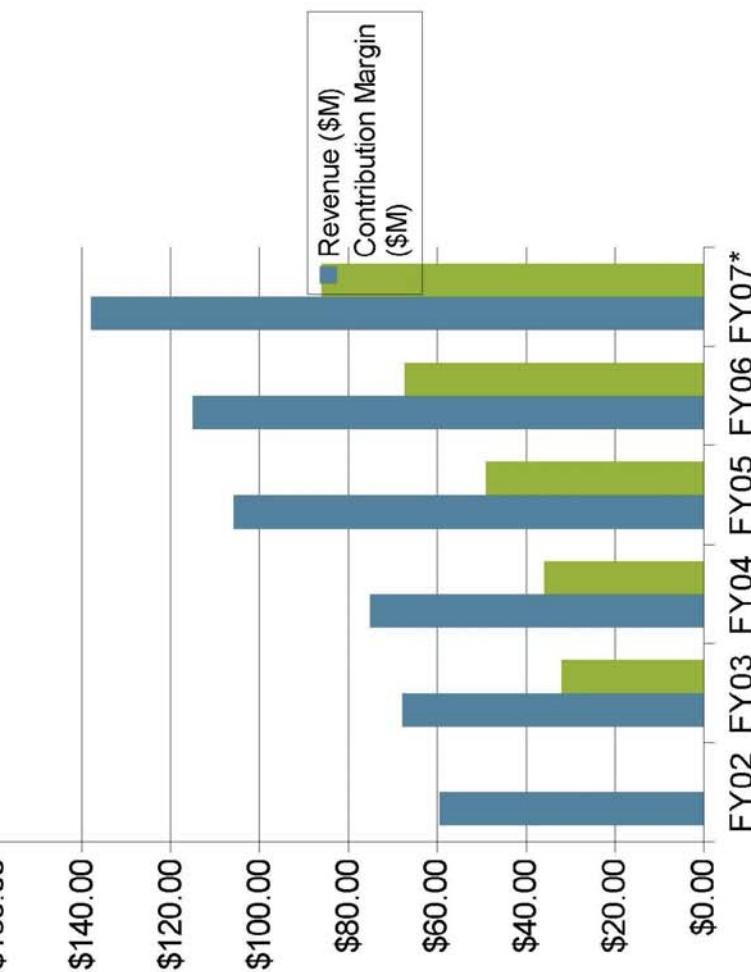
UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
<b>TRIAL EXHIBIT 7237</b>
CASE NO. 10-03561 WHA
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# Consistent Top and Bottom Line Growth Through IP-centric OEM Business Model



Our business has been growing faster than our largest market

Java ME 5yr CAGR of 17.9% beats device market 5yr CAGR of 14.5%

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# But Market Changes Threaten Our Position

- Market is increasingly driven by content, bringing in a new set of players (e.g. Google, Disney, Apple)
- Gaming is decreasing as a percentage of mobile data services revenue. Therefore Java is decreasing as:
  - > percentage of data ARPU and SW BOM
  - > driver of per device revenue for carriers and developers
- Increase in device capability and networking shifting the market to advanced platforms; growth is more than 5x feature phones
  - > New competitors entering the advanced market; no entrenched incumbent
  - > OS: MSFT mobile, Symbian Series 60, RIM, Access (Palm), Linux, QCOM; Application platform: Java ME CDC, Flash, MSFT, Native

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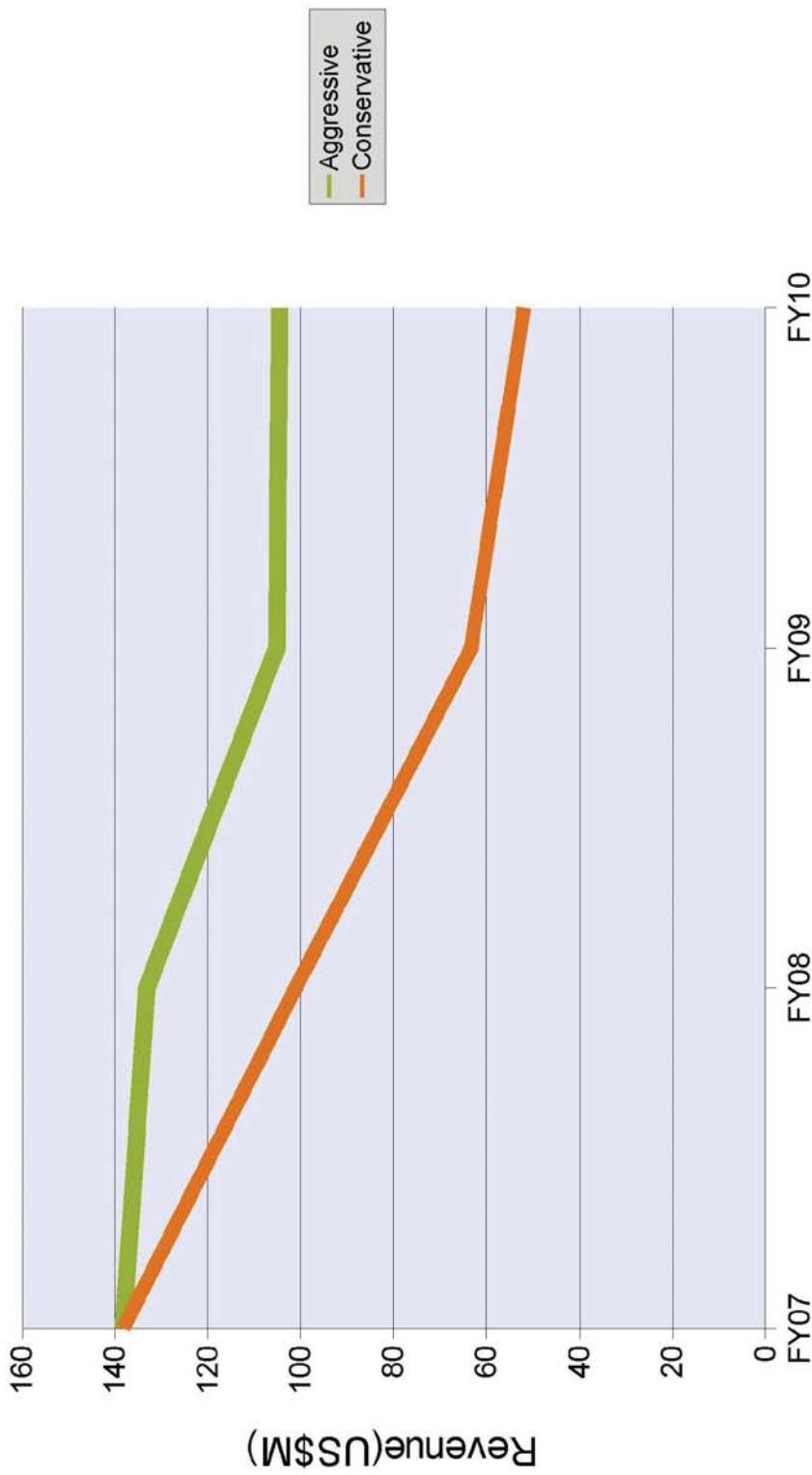


# With Fragmentation Further Undermining The Java Value Proposition

- “Having it your way” - liberal source distribution - accelerated adoption, but spawned implementation variations across the ecosystem (fragmentation)
  - Test and certification across device/platform/implementation combinations drives 55% of development costs on average rising to 80% for more popular applications
    - Can cost \$150k - \$450k to develop a midrange Java application
- Competitors, e.g. BREW, MSFT, Flash perceived as less fragmented and easier for developers to monetize

# Stay The Course and Revenue Drops

ME POR Revenue Forecast



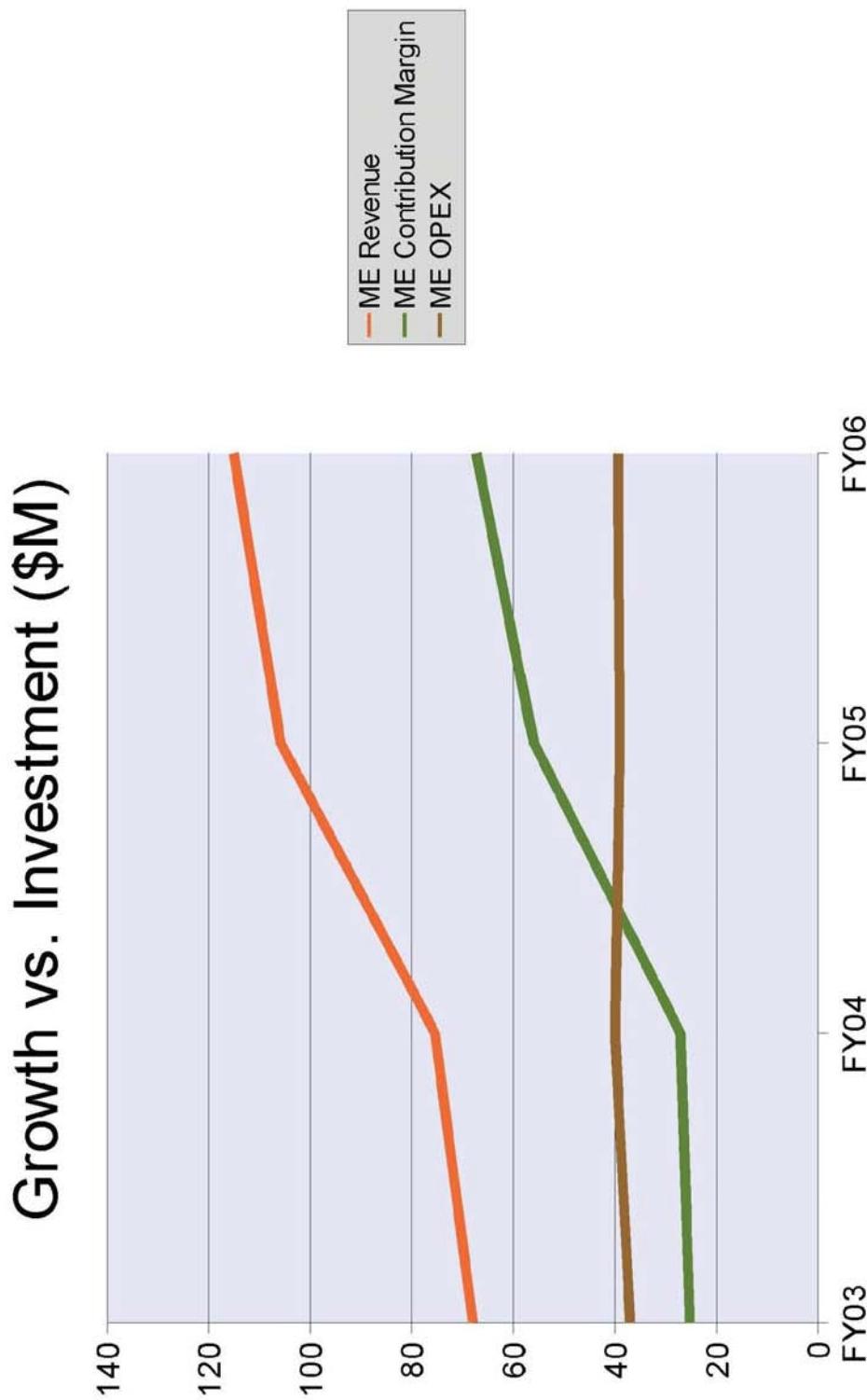
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# Flat Investment in a Growth Market Means SMI Ceding Market Position



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# Global Wireless Data Revenue is Growing; Position Java To Capture a Bigger Share **Quarterly data revenue cagr is 16.8% (Cowen and company)**

## Our 3 Imperatives:

- Address fragmentation – make Java a viable platform for rich data services across devices
  - Deliver a full stack Java implementation; use open source to engage developers and accelerate adoption
- Expand Java beyond gaming – focus on ISVs and what they need to write rich data apps to our platform
  - Enable migration of native and markup apps to Java
- Implementation Specialist
  - Create ecosystem around Sun bits, not just Java
  - In deep with OEMs – use relationship with market tippers to drive ISV certification to our bits

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## We Need to Shift From Carrier-centric to Developer/content-centric

- Leverage the community to drive the kind of innovation needed for a platform that enables rich data services
- Open Source will help us to interact with and understand the needs of developers, and how to solve their problems
  - Both platform and application developers will have the ability to help drive the evolution of these platforms in the community
- Developer engagement at this level will accelerate adoption of the platform, driving implementation consistency up and fragmentation down
  - Unification of the platform reduces porting and development costs, while increasing available device volume

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# Invest to go beyond Mobile Gaming

- Capture non-gaming mobile content
  - > P2P Messaging (SMS/MMS, IM, IMS) \$ 90 bil in 09
  - > Consumer Information Services \$ 41 bil in 09
  - > Rich Multimedia Services (TV, Music) \$ 26 bil in 09
- Enable “Off deck” branded Services
  - > Without the expense of being a MVNO
- Position Java as the primary application environment for Mobile Linux
- Convergence for enabling multi-screen services

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# Java ME's Big Bets



<b>Java System Executive ("Operating System")</b>	Integration with Advanced OS Browser Integration Java Multitasking
<b>Content Management</b>	Intelligent File System DRM Integration
<b>Advanced UI</b>	Device Management Declarative UI XML based UI Customizable Look and Feel
<b>Data Services Integration</b>	IMS Client Framework Web Services enablement

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# Java as the Primary Environment

<b>P2P Messaging</b>	<b>IMS Client Framework</b> <b>PIM Integration</b> <b>SMS / MMS</b> <b>Local Connectivity (WiFi, BT)</b>
<b>Consumer Information Services</b>	<b>Browser Integration</b> <b>Location-Based Services</b> <b>Web Services Enablement</b> <b>XML and SVG UI Integration</b>
<b>Rich Multimedia Services (TV, Movies, Music, etc.)</b>	<b>SVG</b> <b>Mobile Broadcast</b> <b>Digital Right Management</b> <b>Payment</b>
<b>Enabling “Off deck” Branded Services (Without MVNO expense)</b>	<b>Declarative UI</b> <b>XML and SVG UI Integration</b> <b>Device Management</b> <b>Native / Java App Integration</b> <b>Over-The-Air Updates</b> <b>Customizable Look &amp; Feel</b>

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# Commercial Roadmap Themes

	March 2007	September 2007	March 2007	September 2008
<b>Feature Phone : Follow the Market Requirements</b>				
<b>Wireless Performance Pack</b>	Non-Gaming enablement (SMS/MMS, Rich 3d Graphics, M-Commerce)			
<b>Portfolio Source</b>		OEM specific ports ahead of engagements Factory of 3 <sup>rd</sup> party components Carrier solutions for Vodafone VFX, Sprint, and as developed, Cingular, Orange		
<b>Binary Solutions</b>		Build or drive to standard binaries Windows Mobile binary		
<b>Advanced Phone : Changing the Market</b>				
<b>Create Base CDC Wireless Base Product</b>			Define, Drive adoption of Java Wireless Player and Solution Leverage existing Umbrella Java Wireless Standards Push customizable UE and dynamic computing platform Extend to develop converged device platform	
<b>Develop a Sun Phonetop Solution for Linux</b>				Define, Drive adoption of Sun Phonetop for Linux

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# Commercial Feature Roadmap

	1H 2007	2H 2007	1H 2008
<b>Feature Phone Java Player</b>			
P2P Messaging	MMS / SMS	Mobile Telephony	
Mobile Multimedia	Audio / Video Recording / Playback		Mobile Broadcast
Consumer Information Services	Location, Payment, Authentication and Web Services	IMS Client Framework, Web Services Improvements	DRM Integration
“Off deck” Applications	SVG UI, Browser integration		Advanced XML UI, SVG 2.0
“Operating Systems” capabilities	Multiple MIDlet support	Skinning / Theming	MIDP 3
Platforms	Linux/ARM	Nucleus/TI, Brew/Qualcomm, Windows Mobile	Keep with OEM roadmap
P2P Messaging			
Mobile Multimedia		Replicate Feature Phone Capabilities	Replicate Feature Phone Capabilities
Consumer Information Services			
“Off deck” Applications			
“Operating Systems” capabilities		Multiple Java application support	Xlet application model
Platforms	Linux/ARM		Windows Mobile, S60/Symbian
Advanced Phone Java Player			Customizable Look and Feel
Advanced UI			
Java System Executive			Content Manager, Native app/Java app co-existence
Content Management			Ringtones, Java, Native app mgmt, DRM engine
Applications			PIM, Preferences, Status
Advanced Phone Linux Phonetop			Sun Proprietary/Confidential: Internal Use Only

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# ISV Program: 3 Tiers

## **Member:**

- Community based information sharing
- Access to papers, newsletters, forums, bug tracking, ...
- Invitations to partner briefings and webinars on new technologies, products, & services
- Viral promotion of innovative ISV technologies
- Open to all, simple community registration

## **Associate: Member benefits +**

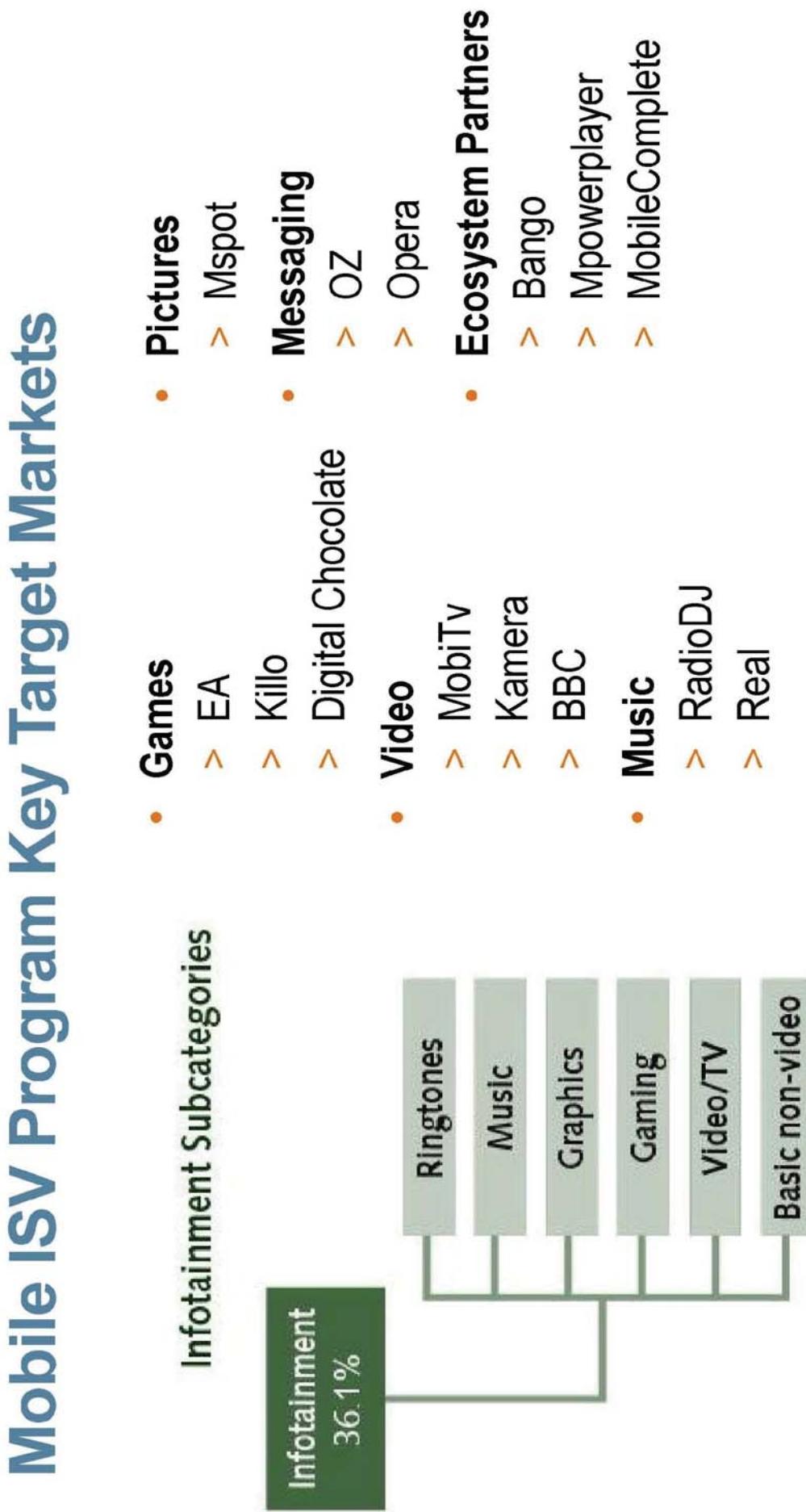
- Access to dedicated technical support resources
- Access to engineering services
- Invitation to "private" briefings on new technologies products & services
- Ability to augment testing and verification suites (JDTS, Java Verified)
- Listing in ISV directory
- By Invitation: Commit to one application though Java Verified

## **Executive: Associate benefits + (Commit to one application though Java Verified)**

- Early access to Sun distributions and devices with those distributions
- Ability to influence implementation and roadmaps
- Invitation to participate in marketing activities (java.com) and events
- Access to named technical support resources
- Member of the "ISV Executive Council"
- Commit to certifying on Sun distributions and commit to joint marketing

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# Mobile ISV Program Key Target Markets



Other segments to consider: Social Networking (myspace), Mobile Messaging (Funambol), video (YouTube mobile)

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# Why Use Sun Bits? Sun Is the Mobile Implementation Specialist

- Requires a closer relationship with our customers and a deep understanding of their business – Our engineers at their site (e.g. BenQ)
- Our value is integration which offers faster time to market, reduced cost and simplification of third party licensing and integration for our customers.
- We will monetize commercial licensing, services and implementations, leveraging our expertise to sell training, support and testing services.

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## Increasing Monetization as Mobile Implementation Specialists

- Implementing more of the Phone stack
  - > Deeper & broader device middleware integration
  - > Implement non-Java middleware to add value – Linux
- Moving from a few reference ports to a larger collections of “off-the-shelf” phone ports
  - > Add embedded OS/HW combinations as supported platforms (TI Neptune/Nucleus, TI 2430/Nucleus, Qualcomm/Brew, Windows Mobile)
- Driving to customer deployable solutions
  - > “Portfolio” source – Deliver solutions on customer ref. platforms
  - > Binary solutions

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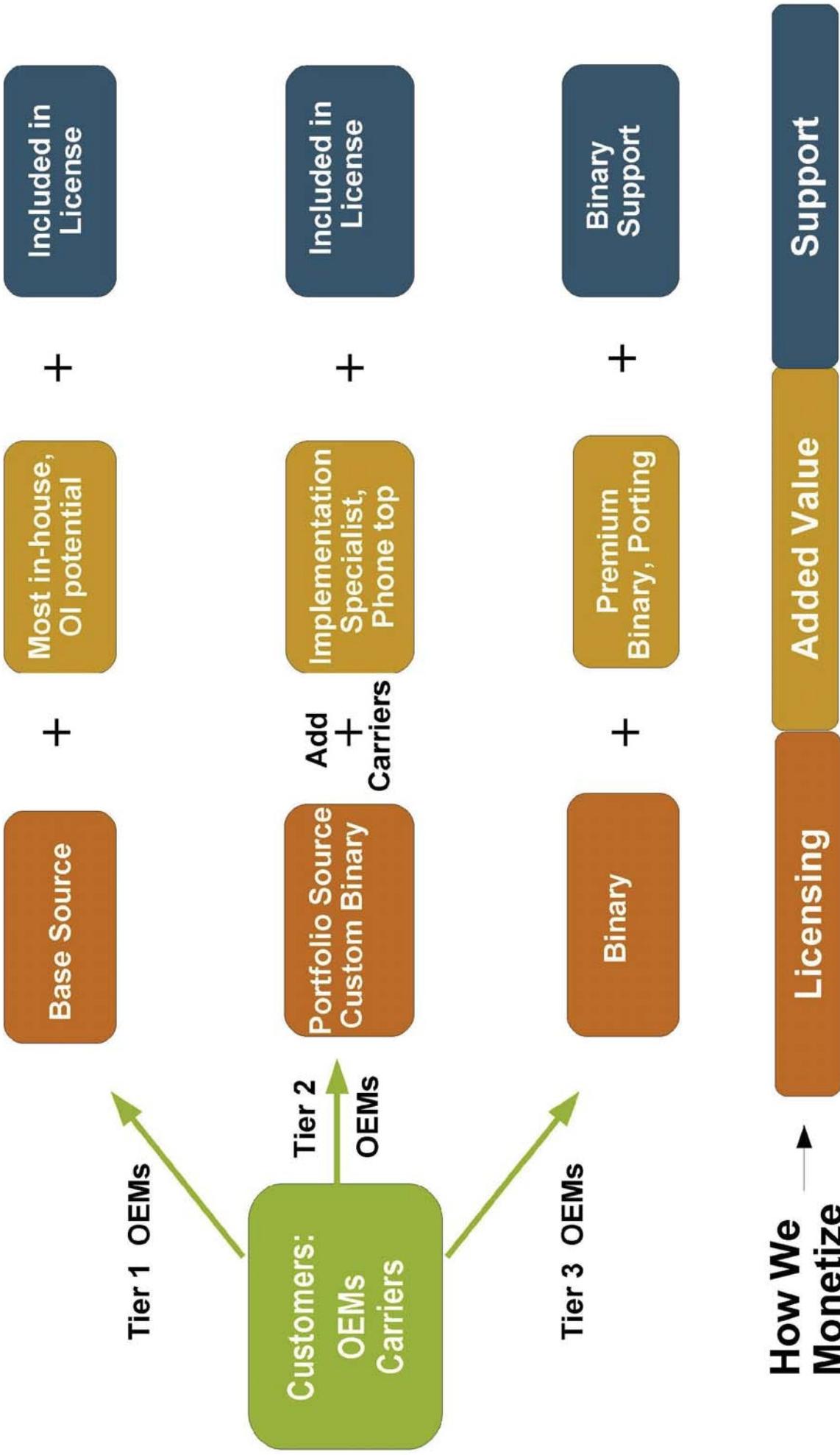
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# Monetizing the Commercial Product

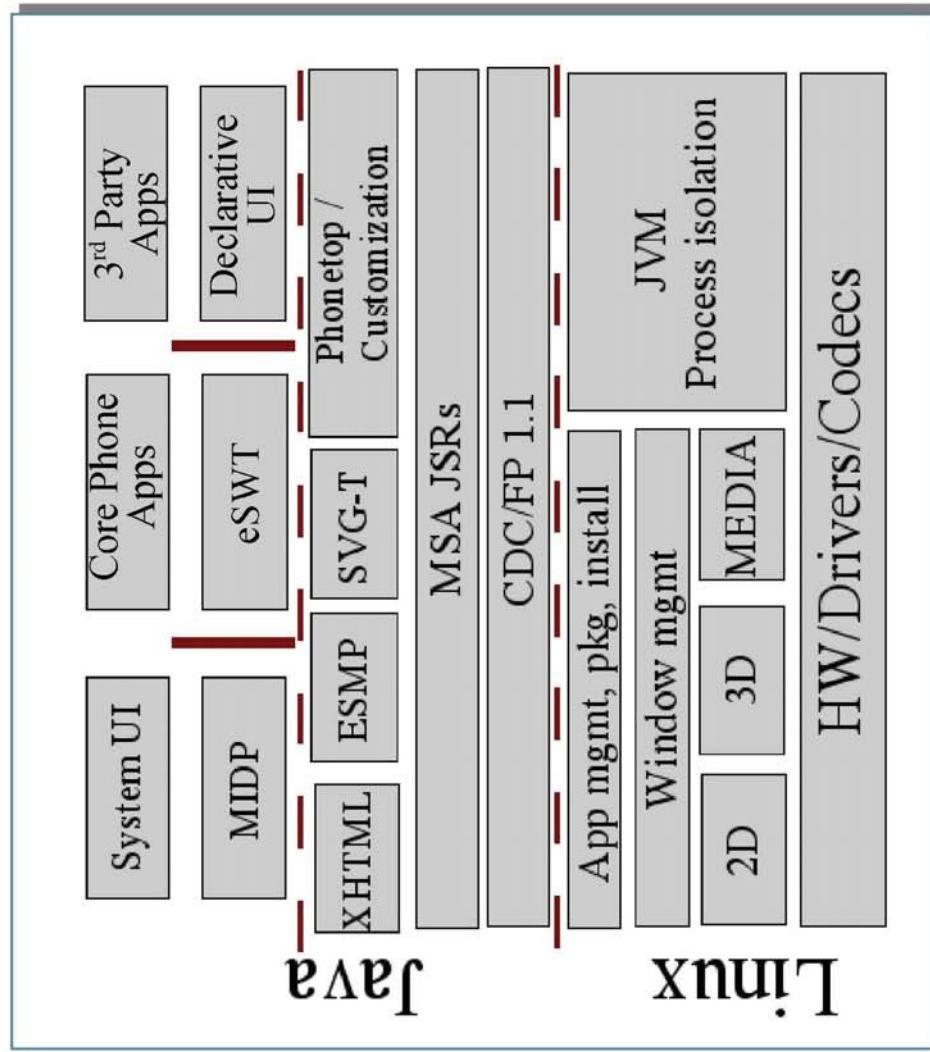


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# Java/Linux Mobile Platform Architecture

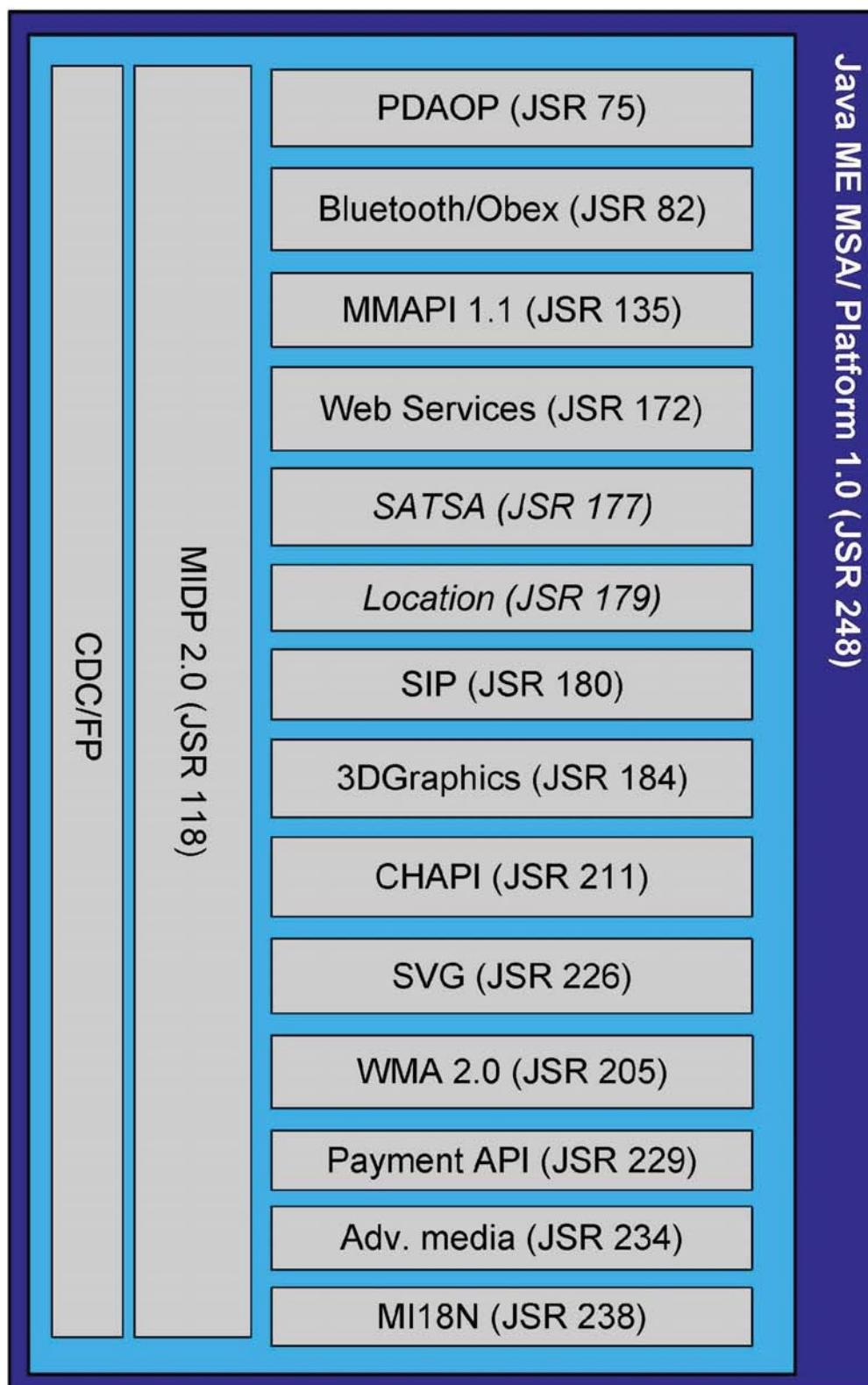


- Full stack Java/Linux implementation:
  - Supported on multiple hardware platforms
  - Integrated Java/XML/Scripting platform
- Allows for OEM and Carrier customization of UI and Services

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# Java stack enables developers



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# Revenue Scenario: Shipment volume averaged and held constant

<b>Drafting</b> 	<b>Fat City</b> 	<b>Small Market Dominator</b> 	<b>Commodity</b> 
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**High              Low**  
**Data ARPU growth**

**Low              High**  
**Java relevance in Data ARPU**

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# Scenario Model - Pricing

**Drafting Scenario— High Data APRU Growth, Java drive small % of overall data APRU, slight price erosion for current products, slower ramp up**

CDC	Nokia	Motorola	Tier 2	Tier 3	CLDC	Nokia	Motorola	Tier 2	Tier 3
<b>Standards</b>	\$0.00	\$0.00	\$0.23	\$0.59		\$0.00	\$0.00	\$0.11	\$0.25
<b>Base Impl.</b>	\$0.04	\$0.07	\$0.22	\$0.55		\$0.04	\$0.07	\$0.14	\$0.32
<b>Portfolio Source</b>	\$0.04	\$0.07	\$0.32	\$0.83		\$0.04	\$0.07	\$0.22	\$0.47
<b>Custom Binary</b>	\$0.07	\$0.16	\$0.66	\$1.58		\$0.07	\$0.16	\$0.44	\$0.90
<b>Custom Binary + Source code</b>	\$0.07	\$0.16	\$0.66	\$1.58		\$0.07	\$0.16	\$0.44	\$0.90
<b>Phone Top</b>	\$0.90	\$0.90	\$1.35	\$1.80					

**Fat City Scenario – High Data APRU Growth, Java drive large % of overall data APRU, price with premium, cap applied across OEMs**

CDC	Nokia	Motorola	Tier 2	Tier 3	CLDC	Nokia	Motorola	Tier 2	Tier 3
<b>Standards</b>	\$0.00	\$0.00	\$0.42	\$1.06		\$0.00	\$0.00	\$0.19	\$0.45
<b>Base Impl.</b>	\$0.04	\$0.12	\$0.38	\$0.98		\$0.04	\$0.12	\$0.26	\$0.56
<b>Portfolio Source</b>	\$0.06	\$0.12	\$0.58	\$1.47		\$0.06	\$0.12	\$0.38	\$0.84
<b>Custom Binary</b>	\$0.13	\$0.29	\$1.18	\$2.80		\$0.13	\$0.29	\$0.78	\$1.60
<b>Custom Binary + Source code</b>	\$0.13	\$0.29	\$1.18	\$2.80		\$0.13	\$0.29	\$0.78	\$1.60
<b>Phone Top</b>	\$1.60	\$1.60	\$2.40	\$3.20					

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# Business Case and ROI – includes isv/sdn/tools (\$9m incremental OPEX)

	FY07	FY08	FY09	FY10	Cumulative
Revenue	138.3	154.7	241.4	342.5	876.9
COGS	14.0	23.0	58.0	109.0	204.0
Gross Margin	124.3	131.7	183.4	233.5	672.9
SW OPEX	43.3	46.8	46.8	46.8	183.7
ROI Ratio	2.9	2.8	3.9	5.0	3.7



Drafting Scenario  
Data ARPU Growth = High  
Java Relevance = Low

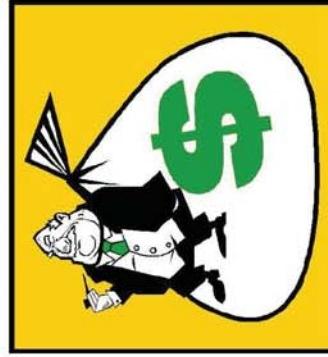
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# Business Case and ROI – includes isv/sdn/tools (\$9m incremental OPEX)

	FY07	FY08	FY09	Cumulative	
(\$M)	Revenue	COGS	Gross Margin	SW OPEX	ROI Ratio
138.3	231.0	14.0	124.3	43.3	2.9
		33.0	198.0	46.8	4.2
		14.0	198.0	46.8	5.9
		81.5	277.5	46.8	5.9
				46.8	7.1
				183.7	5.1
					276.0
					1206.3



**Fat City Scenario**  
**Data ARPU Growth = High**  
**Java Relevance = High**

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## Summing It Up: This is good business

- Staying the course means walking away from this market over time
- Business model of developer/content centric with an active focus of enrolling ISVs to help drive adoption of our bits can reposition Sun as a leader in the mobile market
- We need \$9m\* in annual runrate to fund activities across software (CSG, MDE, SDN, Tools) for a return over 4 years of from \$876m to \$1.2b (ROI ratio in 2010 of 5-7.1)

\* FY07 = \$2.25m/quarter; begin ramp in Q2, total = \$5.5m

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## But Even With \$9m, It's Not Fast Enough to Counter Market Forces

- Current trajectory won't position Sun to win the Advance OS Mobile app platform battle
- 100% alignment with Nokia's CDC Java direction to solve fragmentation & leverage Nokia's mobile developers
  - Key initiatives:
    - Secure the VM design win in Series 60
    - Align Sun's Java ME commercial stacks to Nokia Series 60 Java platform behavior
    - Fast track CDC/MIDP/OSGi/eSWT solution
    - Collaborate with Nokia to complete Declarative UI technology
- Issues: Eclipse v. Netbeans for Nokia ecosystem; eSWT

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## Extra Slides





# Investment Distribution

	FY07 (\$M)	FY08 (\$M)	FY09 (\$M)	FY10 (\$M)
R&D Community	\$1.70	\$2.80	\$2.80	\$2.80
R&D Commercial/ES	\$2.00	\$3.50	\$3.50	\$3.50
Prod Dev Support	\$0.40	\$0.60	\$0.60	\$0.60
ISV	\$1.00	\$1.50	\$1.50	\$1.50
Tools	\$0.40	\$0.60	\$0.60	\$0.60
SDN	TBD	TBD	TBD	TBD
Marketing	TBD	TBD	TBD	TBD
	\$5.50	\$9.00	\$9.00	\$9.00

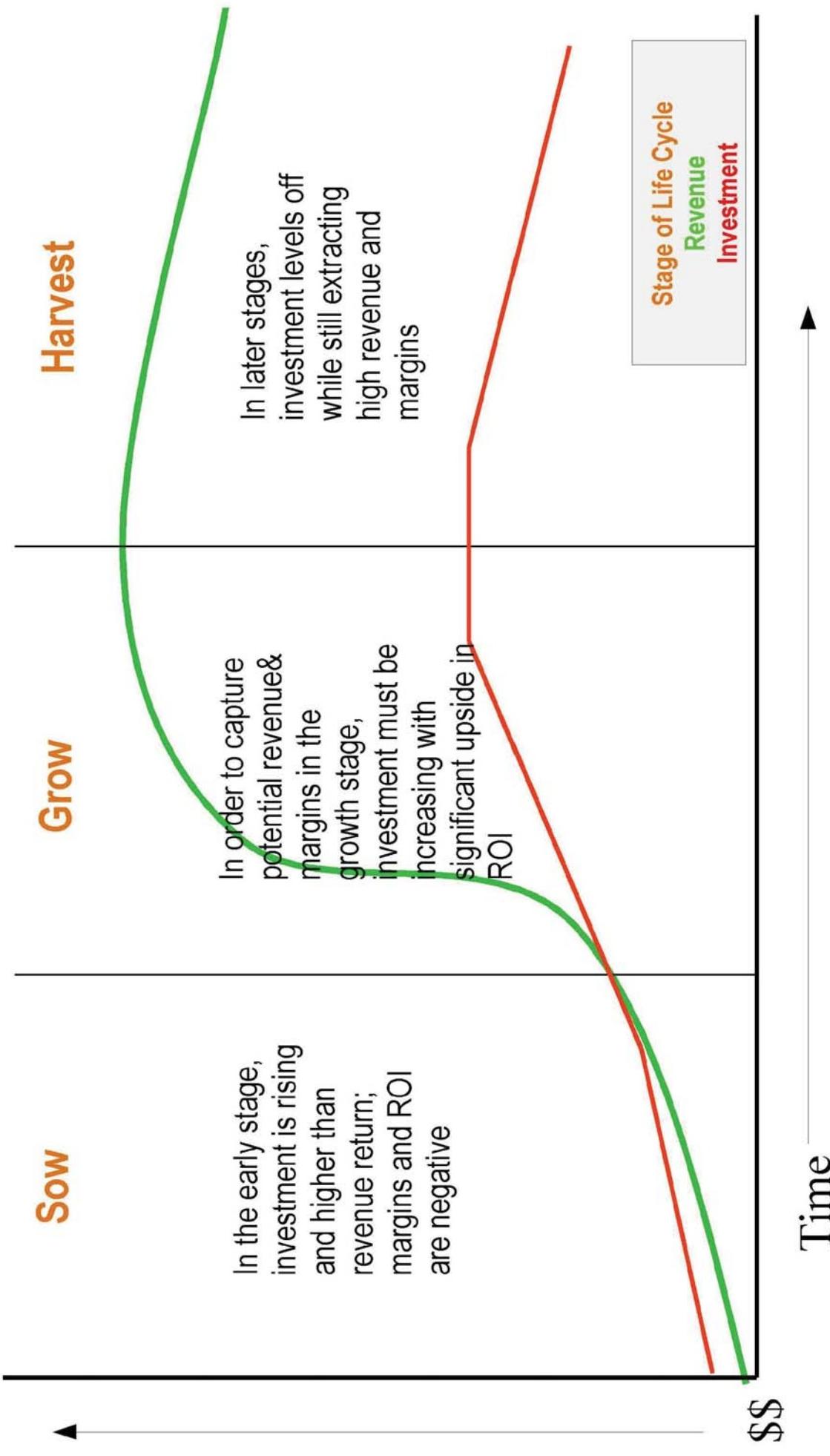
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# Optimal product investment/revenue lifecycle



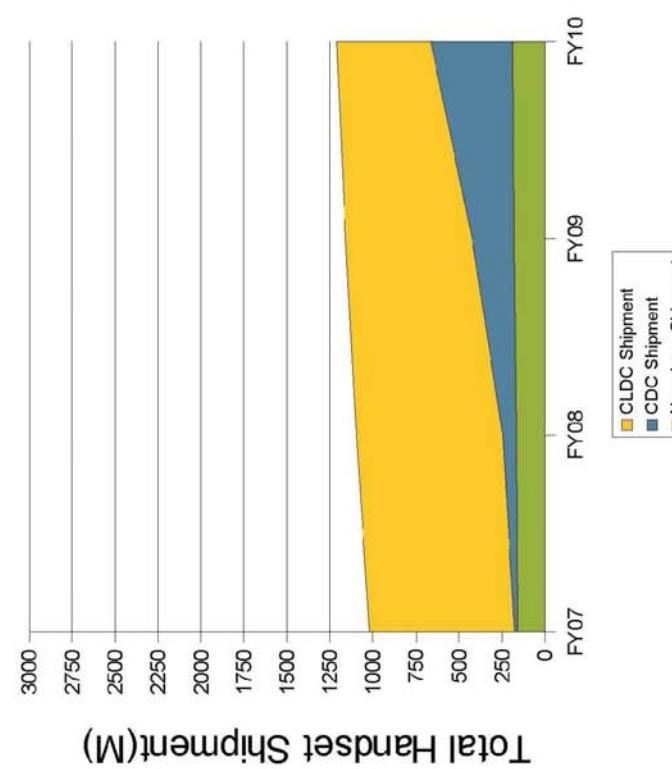
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# Advanced Phones Growing Faster

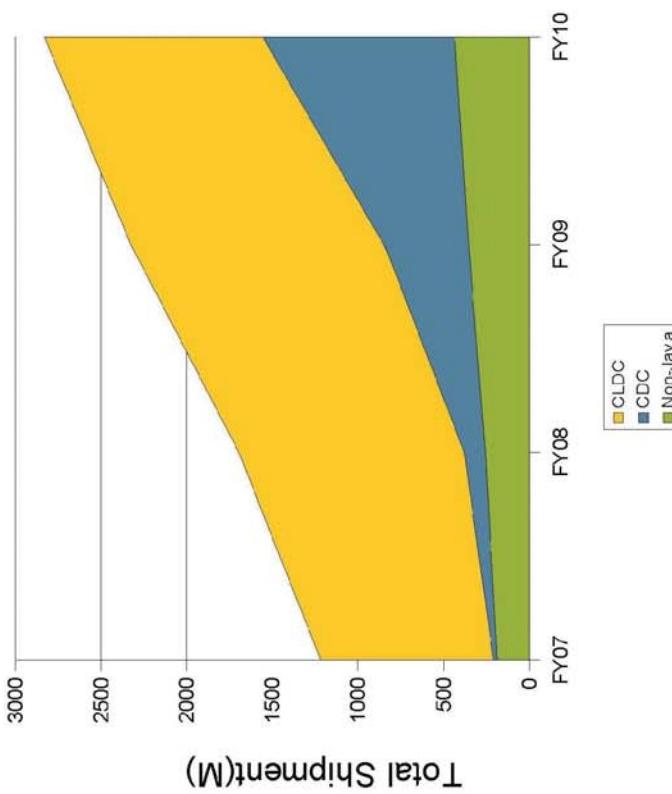
Conservative Shipment Outlook  
(Strategy Analytic)

Java Shipment Forecast(M units)



Aggressive Shipment Outlook  
(Visiongain)

Java Shipment Forecast (M units)



Source: Strategy Analytics, Visiongain, Ovum

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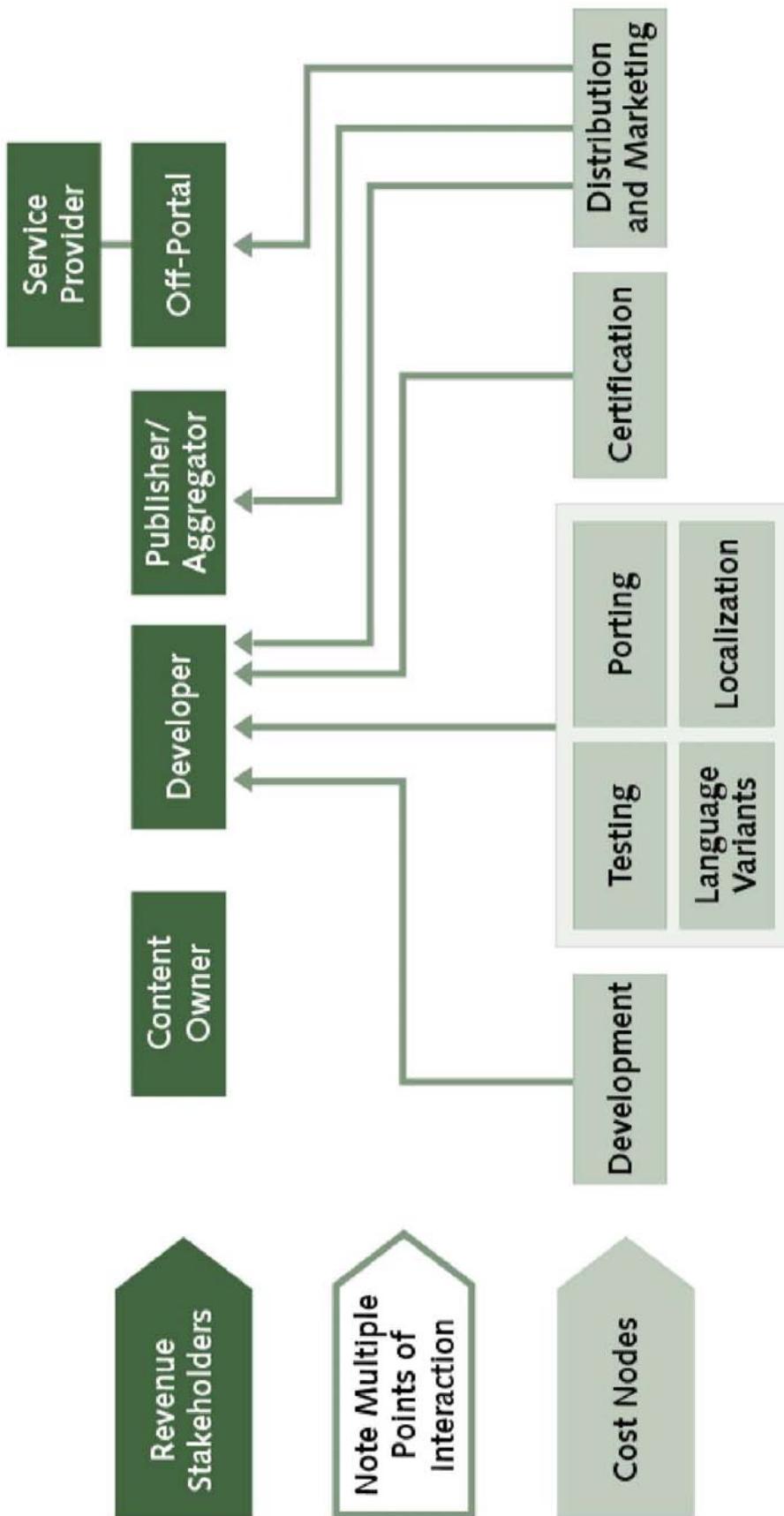
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# And Developers Carry Most of the Cost

## Cost Burden for Java ME Application Development and Delivery



Source: Yankee Group, 2006 [WMT-14802, exhibit 11]  
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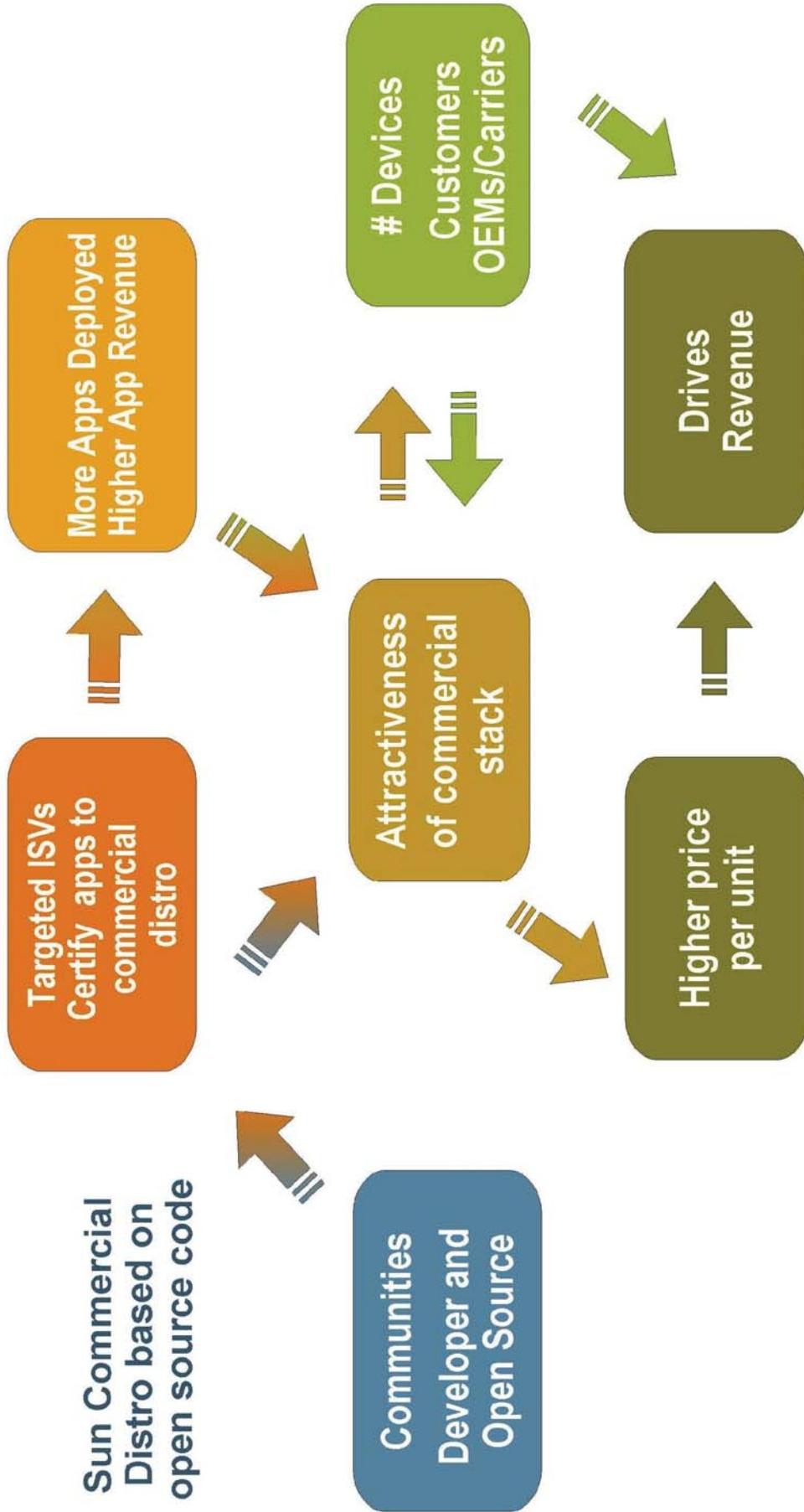
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# Driving Value Across the Chain

## Content drives adoption and monetization



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